What is claimed is:

A dye represented by the following formula (1):
 formula (1)

$$(R_{14})_{n13}$$
 $(R_{13})_{n12}$ 

wherein Z is an atomic group necessary to form a 6-membered nitrogen containing aromatic ring;  $R_{11}$  is a hydrogen bonding group;  $R_{12}$ ,  $R_{13}$  and  $R_{14}$  are independently a hydrogen atom or a substituent; nll and nl3 are each an integer of 1 to 4; nl2 is an integer of 1 to 3.

2. The dye of claim 1, wherein the dye represented by formula (1) is a dye represented by the following formula (2), (3), (4), (5), (6) or (7):

formula (2) 
$$(R_{22})_{n21}$$
  $R_{21}$   $R_{21}$   $(R_{24})_{n23}$   $(R_{23})_{n22}$ 

formula (3)
$$(R_{32})_{n31}$$
 $R_{31}$ 
 $R_{33}$ 
 $(R_{35})_{n33}$ 
 $(R_{34})_{n32}$ 

formula 
$$(4)$$
 $(R_{42})_{n41}$ 
 $(R_{45})_{n43}$ 
 $(R_{45})_{n43}$ 
 $(R_{44})_{n42}$ 

formula (5)
$$R_{51} \qquad (R_{52})_{n51}$$

$$(R_{55})_{n53} \qquad (R_{54})_{n52}$$

formula (6) 
$$R_{61}$$
  $(R_{62})_{n61}$   $(R_{65})_{n63}$   $(R_{64})_{n62}$ 

formula (7) 
$$R_{71}$$
  $R_{72}$   $R_{72}$   $R_{72}$   $R_{72}$   $R_{73}$   $R_{73}$   $R_{73}$   $R_{73}$   $R_{73}$   $R_{73}$   $R_{73}$   $R_{73}$   $R_{73}$   $R_{73}$ 

wherein  $R_{21}$ ,  $R_{31}$ ,  $R_{41}$ ,  $R_{51}$ ,  $R_{61}$  and  $R_{71}$  are each a hydrogen bonding atom;  $R_{22}$ ,  $R_{23}$ ,  $R_{24}$ ,  $R_{32}$ ,  $R_{33}$ ,  $R_{34}$ ,  $R_{35}$ ,  $R_{42}$ ,  $R_{43}$ ,  $R_{44}$ ,  $R_{45}$ ,

 $R_{52}$ ,  $R_{53}$ ,  $R_{54}$ ,  $R_{55}$ ,  $R_{62}$ ,  $R_{63}$ ,  $R_{64}$ ,  $R_{65}$ ,  $R_{72}$ ,  $R_{73}$ , and  $R_{74}$  are independently a hydrogen atom or a substituent; n21, n23, n31, n33, n41, n43, n51, n53, n61, n63, n71 and n73 are each an integer of 1 to 4; n22, n32, n42, n52, n62 and n72 are each an integer of 1 to 3.

- 3. The dye of claim 2, wherein the dye represented by formula (1) is a dye represented by formula (2) or (3).
- 4. The dye of claim 3, wherein the dye represented by formula (2) is a dye represented by the following formulas (8) or (9), and the dye represented by formula (3) is a dye represented by the following formulas (10) or (11):

formula (8) 
$$(R_{22})_{n21}$$
  $R_{21}$   $R_{21}$   $R_{24})_{n23}$   $R_{25}$ 

formula (9)
$$(R_{22})_{n21} = R_{21}$$

$$(R_{24})_{n23} = R_{26}$$

$$(R_{28})_{n24}$$

$$(R_{28})_{n24}$$

formula (10)
$$(R_{32})_{n31} = R_{31}$$

$$(R_{35})_{n33} = R_{36}$$

$$(R_{36})_{n35} = R_{36}$$

formula (11)
$$(R_{32})_{n31} \xrightarrow{\parallel} R_{31}$$

$$(R_{35})_{n33} \xrightarrow{\parallel} (R_{34})_{n35}$$

$$R_{37} \xrightarrow{\parallel} (R_{39})_{n34}$$

wherein  $R_{21}$  and  $R_{31}$  are independently a hydrogen bonding group;  $R_{22}$ ,  $R_{23}$ ,  $R_{24}$ ,  $R_{28}$ ,  $R_{32}$ ,  $R_{33}$ ,  $R_{34}$ ,  $R_{35}$  and  $R_{39}$  are independently a hydrogen atom or a substituent;  $R_{26}$ ,  $R_{27}$ ,  $R_{37}$  and  $R_{38}$  are independently a substituent; n21, n23, n31, and n33 are each an integer of 1 to 4; n24 and n34 are each an integer of 1 to 3; n25 and n35 are each an integer of 1 or 2;  $R_{25}$  and  $R_{36}$  are independently a group having a Hammett substituent constant  $(\sigma p)$  of 0.3 to 1.0.

5. The dye of claim 3, wherein the dye represented by formula (2) is a dye represented by the following formula (12), and the dye represented by formula (3) is a dye represented by the following formula (13):

formula (12) 
$$(R_{22})_{n21}$$
  $(R_{32})_{n31}$   $(R_{32})_{n31}$   $(R_{33})_{n33}$   $(R_{34})_{n35}$   $(R_{39})_{n34}$ 

wherein  $R_{21}$  and  $R_{31}$  are independently a hydrogen bonding group;  $R_{22}$ ,  $R_{23}$ ,  $R_{24}$ ,  $R_{28}$ ,  $R_{32}$ ,  $R_{33}$ ,  $R_{34}$ ,  $R_{35}$  and  $R_{39}$  are independently a hydrogen atom or a substituent; n21, n23, n24, n31, n33, and n34 are each an integer of 1 to 4; n25 and n35 is an integer of 1 or 2.

6. An ink for ink jet printing comprising a dye represented by the following formula (1):

## formula (1)

$$(R_{14})_{n13}$$
 $(R_{12})_{n14}$ 
 $(R_{13})_{n12}$ 

wherein Z is an atomic group necessary to form a 6-membered nitrogen containing aromatic ring;  $R_{11}$  is a hydrogen bonding group;  $R_{12}$ ,  $R_{13}$  and  $R_{14}$  are independently a hydrogen atom or a substituent; nll and nl3 are each an integer of 1 to 4; nl2 is an integer of 1 to 3.

7. The ink of claim 6, wherein the dye represented by formula (1) is a dye represented by the following formula (2), (3), (4), (5), (6) or (7):

formula (3)
$$(R_{32})_{n31}$$

$$R_{33}$$

$$(R_{35})_{n33}$$

$$(R_{34})_{n32}$$

formula (4) 
$$R_{41}$$
  $R_{43}$   $R_{45}$   $R_{45}$   $R_{43}$   $R_{45}$   $R_{44}$   $R_{44}$   $R_{44}$   $R_{44}$   $R_{45}$   $R_{45}$ 

formula (5)
$$R_{51} \qquad (R_{52})_{n51}$$

$$(R_{55})_{n53} \qquad (R_{54})_{n52}$$

formula (6) 
$$R_{61}$$
  $R_{62}$   $R_{62}$   $R_{62}$   $R_{63}$   $R_{63}$   $R_{63}$   $R_{63}$   $R_{63}$   $R_{64}$   $R_{64}$   $R_{64}$   $R_{64}$   $R_{64}$   $R_{64}$ 

formula (7) 
$$R_{71}$$
  $R_{71}$   $R_{72}$   $R_{72}$   $R_{72}$   $R_{72}$   $R_{73}$   $R_{73}$ 

wherein  $R_{21}$ ,  $R_{31}$ ,  $R_{41}$ ,  $R_{51}$ ,  $R_{61}$  and  $R_{71}$  are each a hydrogen bonding atom;  $R_{22}$ ,  $R_{23}$ ,  $R_{24}$ ,  $R_{32}$ ,  $R_{33}$ ,  $R_{34}$ ,  $R_{35}$ ,  $R_{42}$ ,  $R_{43}$ ,  $R_{44}$ ,  $R_{45}$ ,

 $R_{52}$ ,  $R_{53}$ ,  $R_{54}$ ,  $R_{55}$ ,  $R_{62}$ ,  $R_{63}$ ,  $R_{64}$ ,  $R_{65}$ ,  $R_{72}$ ,  $R_{73}$ , and  $R_{74}$  are independently a hydrogen atom or a substituent; n21, n23, n31, n33, n41, n43, n51, n53, n61, n63, n71 and n73 are each an integer of 1 to 4; n22, n32, n42, n52, n62 and n72 are each an integer of 1 to 3.

- 8. The ink of claim 7, wherein the dye represented by formula (1) is a dye represented by formula (2) or (3).
- 9. The ink of claim 8, wherein the dye represented by formula (2) is a dye represented by the following formulas (8) or (9), and the dye represented by formula (3) is a dye represented by the following formulas (10) or (11):

formula (8) 
$$(R_{22})_{n21}$$
  $(R_{24})_{n23}$   $(R_{24})_{n23}$   $(R_{24})_{n25}$   $(R_{25})_{n25}$ 

formula (9)
$$(R_{22})_{n21} \xrightarrow{\text{II}} R_{21}$$

$$(R_{24})_{n23} \xrightarrow{\text{II}} (R_{23})_{n25}$$

$$R_{26}$$

$$R_{27} \xrightarrow{\text{II}} (R_{28})_{n24}$$

formula (10)
$$(R_{32})_{n31} = R_{31}$$

$$(R_{35})_{n33} = R_{36}$$

$$(R_{36})_{n35} = R_{36}$$

formula (11)
$$(R_{32})_{n31} = R_{31}$$

$$(R_{35})_{n33} = R_{37}$$

$$(R_{34})_{n35}$$

$$R_{37}$$

$$(R_{39})_{n34}$$

wherein  $R_{21}$  and  $R_{31}$  are independently a hydrogen bonding group;  $R_{22}$ ,  $R_{23}$ ,  $R_{24}$ ,  $R_{28}$ ,  $R_{32}$ ,  $R_{33}$ ,  $R_{34}$ ,  $R_{35}$  and  $R_{39}$  are independently a hydrogen atom or a substituent;  $R_{26}$ ,  $R_{27}$ ,  $R_{37}$  and  $R_{38}$  are independently a substituent; n21, n23, n31, and n33 are each an integer of 1 to 4; n24 and n34 are each an integer of 1 to 3; n25 and n35 are each an integer of 1 or 2;  $R_{25}$  and  $R_{36}$  are independently a group having a Hammett substituent constant  $(\sigma p)$  of 0.3 to 1.0.

10. The ink of claim 8, wherein the dye represented by formula (2) is a dye represented by the following formula (12), and the dye represented by formula (3) is a dye represented by the following formula (13):

formula (12)
$$(R_{22})_{n21}$$
 $R_{21}$ 
 $(R_{23})_{n25}$ 
 $(R_{24})_{n23}$ 
 $(R_{24})_{n23}$ 
 $(R_{23})_{n25}$ 
 $(R_{28})_{n24}$ 
 $(R_{28})_{n24}$ 
 $(R_{35})_{n33}$ 
 $(R_{35})_{n34}$ 

wherein  $R_{21}$  and  $R_{31}$  are independently a hydrogen bonding group;  $R_{22}$ ,  $R_{23}$ ,  $R_{24}$ ,  $R_{28}$ ,  $R_{32}$ ,  $R_{33}$ ,  $R_{34}$ ,  $R_{35}$  and  $R_{39}$  are independently a hydrogen atom or a substituent; n21, n23, n24, n31, n33, and n34 are each an integer of 1 to 4; n25 and n35 is an integer of 1 or 2.

- 11. The ink of claim 6, wherein in the compound represented by formula (1), the molecule contains at least one sulfonic acid group or at least one carboxyl group.
- 12. The ink of claim 6, wherein the ink comprises the dye in the form of fine particle dispersion.

13. The ink of claim 6, wherein the ink comprises the dye together with an oil-soluble polymer in the form of fine particle dispersion.